



# The Lateral Transpoas Approach for Indirect Decompression in the Obese Population: A Retrospective

## Case Series

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### Introduction

Minimally invasive lateral interbody fusion (LLIF) is commonly performed for the treatment of degenerative disc disease with associated radiculopathy due to foraminal stenosis, spondylolisthesis, and scoliosis. This approach is associated with decreased soft tissue injury, less pain, and quicker recovery. The obese population can pose unique perioperative and postoperative challenges. We retrospectively analyzed self-reported outcomes, blood loss, length of stay, and early postoperative complications following LLIF

### Methods

Clinical records gathered from 2009 to 2012 were retrospectively reviewed identifying 27 obese patients (BMI=30 kg/m<sup>2</sup>) who underwent single or multi-level lateral interbody fusions as a stand-alone procedure, with lateral plating, percutaneous pedicle, or transfacet screws. Outcomes analyzed included visual analog scale (VAS), length of stay (LOS), and estimated blood loss (EBL).

### Results

27 obese patients (11 males and 16 females; mean age of 58) underwent XLIF fusions with a total of 35 levels performed over a 3-year period. Average BMI was 36.7 (range 30.41-46.45). Average LOS was 78.6 hours, and EBL was 59.5 mL. Improvements in VAS were seen when comparing initial clinic visit to last follow-up (average preoperative 7.5, average postoperative VAS 2.4). There were 2 cases of chronic leg dysesthesias and 1 case of L4 palsy, which resolved spontaneously. One case of postoperative incisional hernia occurred. There was one vertebral body fracture that did not require treatment. One patient suffered bilateral iliac vein lacerations requiring an emergent laparotomy and repair. There were no wound infections, incidences of pneumonia, deep venous thrombosis or pulmonary embolus.

### Conclusions

LLIF is a minimally invasive technique that is an effective surgical option for the obese population. Obesity is associated with a relatively low but significant incidence of complications. Further studies are ongoing comparing the clinical outcome and complication profile to normal-weight patients.

### Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the importance of minimizing operative complications related to lateral approach of the lumbar spine in the obese population 2) Discuss, in small groups, the clinical outcomes and perioperative challenges associated with LLIF technique in obese patients, and 3) Identify an effective treatment plan for preventing complications while performing LLIF technique.